



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 215 TO FACILITY OPERATING LICENSE NO. DPR-33

AMENDMENT NO. 231 TO FACILITY OPERATING LICENSE NO. DPR-52

AMENDMENT NO. 188 TO FACILITY OPERATING LICENSE NO. DPR-68

TENNESSEE VALLEY AUTHORITY

BROWNS FERRY NUCLEAR PLANT, UNITS 1, 2, AND 3

DOCKET NOS. 50-259, 50-260, AND 50-296

1.0 INTRODUCTION

In a letter dated September 29, 1993, the Tennessee Valley Authority (the licensee) requested amendments for the Technical Specifications (TS) for the Browns Ferry Nuclear Plant (BFN) Units 1, 2 and 3. The licensee proposed a change to the BFN Units 1, 2, and 3 TS 3.7.B.2.b, 3.7.E.2.b and 3.7.F.2.b and their corresponding Bases. These TSs address the laboratory testing of Engineered Safety Feature (ESF) ventilation systems. At Browns Ferry, these systems are the standby gas treatment (SGT), the control room emergency ventilation, and containment purge. The licensee proposed to delete those aspects of the TSs which reference the temperature and relative humidity at which the laboratory test of the charcoal contained in these ESF systems is conducted. The modified TSs would reference only the test protocol, ASTM D3803. The Bases would specify the 1989 version of ASTM D3803 as the test protocol to be utilized in the conduct of the laboratory test.

2.0 EVALUATION

BFN Unit 1, 2, and 3 TSs 3.7.B.2.b, 3.7.E.2.b and 3.7.F.2.b currently require the performance of a laboratory analysis on the charcoal contained in ESF ventilation system filtration units. As a result of an NRC issued Notice of Violation in February 1986, the licensee proposed TS for BFN which stipulated that the laboratory test of charcoal in ESF systems would be performed in accordance with ASTM D3803-1979, and that the test would be conducted at a temperature of 130°C and a relative humidity of 95%. Amendments to the Browns Ferry licenses granting this change were issued in March 1988.

Information Notice (IN) 86-76, "Problems Noted in Control Room Emergency Ventilation Systems," indicated that laboratory testing of charcoal at a temperature higher than that expected during the course of an accident could result in an overprediction of the capability of the charcoal to remove methyl iodine. The 1979 version of ASTM D3803 had three test temperatures for the performance of the laboratory test of charcoal: 30°C, 80°C and 130°C. The test temperature which is most limiting when predicting the capability of charcoal to remove methyl iodine is 30°C.

ENCLOSURE 4

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Accidents associated with the operation of the BFN ESF ventilation systems could result in actual accident conditions where the limiting temperature is closest to the 30°C. In IN 87-32, "Deficiencies in the Testing of Nuclear-Grade Activated Charcoal," problems associated with the use of test protocol of ASTM D3803-1979 were delineated. The licensee has chosen to address the problems noted by these two INs by switching to the 1989 version of ASTM D3803. In this version, there is only one test temperature, 30°C, and the only relative humidity condition is 95%. The licensee stated that testing in accordance with the 1989 standard would result in a more realistic prediction of the charcoal capability.

The staff has reviewed the licensee's proposed change. The staff agrees that the proposed change to the BFN TSs will result in a more realistic assessment of the capability of the charcoal to remove methyl iodine. Therefore, the staff finds the proposed change acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the Alabama State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendments change requirements with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and changes the surveillance requirements. The NRC staff has determined that the amendments involve no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendments involve no significant hazards consideration, and there has been no public comment on such finding (58 FR 67862). Accordingly, the amendments meet the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendments.

5.0 CONCLUSION

The Commission has concluded, based upon the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and (3) issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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Dated: February 13, 1995

